

## REMARKS

This RCE is being filed in response to the Final Office Action dated March 25, 2003.

Claims 1-11 are pending. Claims 1-11 have been amended. No new matter has been added by way of this amendment. Reconsideration of this application, in light of the present amendment and remarks, is respectfully requested.

Claim 3 stands objected to as being of improper dependent form for failing to further limit the subject matter of a previous claims. As set forth in the Office Action, "Claim 1 has a layer for forming an oily film on skin, and claim 3 states the layer is capable of forming an oily film on skin. If a layer is 'for' something, which is intended use, then it has to be capable of something, therefore claim 3 is not further limiting claim 1, it is just rephrasing it."

In response to this objection, Applicant has amended claim 3 in a manner that is believed to address the specific objection. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

Claims 1-11 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,160,200 to *Ehrnsperger* et al. In response to this ground of rejection, Applicant has amended the claims to more clearly define those features of the invention that distinguish it over the cited reference. Accordingly, for the reasons set forth hereafter, Applicant respectfully submits that all claims of record distinguish over the cited reference.

Claims 1, 8, 9, and 10 have been amended to recite the limitations "a skin-protective ingredient containing layer applied on one surface of said top sheet (on a side mating with skin of a wearer) such that a skin-protective ingredient is released from said one surface of said top sheet to

form an oily film on skin of the wearer ... and a support layer formed over said skin-protective ingredient containing layer for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble water.”

On page 2, paragraph 3 of the Office Action, the statement is made with respect to claims 1-3, 6, and 8-10 that:

“Ehrnsperger discloses the use of an absorbent article (20) with a topsheet (24), backsheet (26) and core located in between (See figures 1-6). Ehrnsperger discloses the topsheet contains a layer which is a lotion composition (column 6, line 64 to column 7, line 17) ... a lotion is fully capable of forming an oily layer on skin of a wearer ... Ehrnsperger also discloses the use of a support layer (60) covering the topsheet and being soluble in water at and above 35 degrees Celsius (column 10, lines 36-53, column 13, lines 1-23) ... [and that] due to the fact the support layer is dissolvable in water, then this is 100% humidity, and therefore is promoted at 100% humidity, which is greater than 30% ... Ehrnsperger discloses the support layer (60) is made of polyvinyl alcohol (col. 11, lines 38-41).

The passage to which reference is made discusses the “location” of the lotion.

Specifically, this section of the *Ehrnsperger et al.* patent states:

“Any portion of the topsheet 24 may be coated with a lotion as is known in the art. Examples of suitable lotions include those described in U.S. Patent No. 5,607,760 entitled ‘Disposable Absorbent Article Having a Lotioned Topsheet Containing an Emollient and a Polyvol Polyester Immobilizing Agent’ which issued to Roe on March 4, 1997; U.S. Patent No. 5,609,587 entitled ‘Diaper Having a Lotioned Topsheet Comprising a Liquid Polyol Polyester Emollient and an Immobilizing Agent’ which issued to Roe on March 11, 1997; U.S. Patent No. 5,635,191 entitled “Diaper Having a Lotion Topsheet Containing a Polysiloxane Emollient” which issued to Roe et al. on June 3, 1997; and U.S. Patent No. 5,643,588 entitled ‘Diaper Having a Lotioned Topsheet’ which issued to Roe et al. on July 1, 1997. *The lotion may function alone or in combination with another agent as the hydrophobizing treatment described above. The topsheet 24 may also include or be treated with antibacterial agents, some examples of which are disclosed in PCT Publication No. WO*

95/24173 entitled 'Absorbent Articles Containing Antibacterial Agents in the Topsheet For Odor Control' which was published on Sep. 14, 1995 in the name of Theresa Johnson. Further, the topsheet 24, the backsheet 26 or any portion of the topsheet 24 or backsheet 26 may be embossed and/or matte finished to provide a more cloth like appearance." (see col. 6, line 64 to col. 7, line 17) [emphasis added]

As is evident from the foregoing passage, *Ehrnsperger et al.* uses the lotion as an hydrophobizing treatment for providing the top sheet with hydrophobic properties. That is, in *Ehrnsperger et al.* patent, the lotion is only one candidate of different hydrophobic agents providing the hydrophobic properties for the top sheet as a replacement of the top sheet made of hydrophobic material. This is made further apparent by the passage:

"Preferably, the topsheet 24 is made of a hydrophobic material or is treated to be hydrophobic in order to isolate the wearer's skin from liquids contained in the absorbent core 28. If the topsheet 24 is made of a hydrophobic material, preferably at least the upper surface of the topsheet 24 is treated to be hydrophilic so that liquids will transfer through the topsheet more rapidly (column 6, lines 29 to 35)."

The intent here is not to transfer the lotion from the top sheet to the wear's skin. It follows that *Ehrnsperger et al.* fails to teach the limitation "a skin-protective ingredient containing layer applied on one surface of said top sheet (on a side mating with skin of a wearer) such that a skin-protective ingredient is released from said one surface of said top sheet to form an oily film on skin of the wearer, as set forth in amended independent claims 1, 8, 9, and 10.

On the other hand, regarding the support layer (60), the text set forth in col. 10, lines 36 to 53, col. 13, lines 1 to 23, and col. 11, lines 38 to 41 states:

"Specifically, the waste passage member 60 preferably has a body facing surface 62 and an opposing garment facing surface 64. At Least a portion of the body facing surface 62 includes one or more soluble materials 66 which are capable of being dissolved by substances commonly found in human or mammalian bodily waste. Preferably, the waste-soluble substances comprised in the body facing surface 62 are initially capable of providing the structural integrity of

the waste passage member 60. Upon excretion, the bodily wastes dissolve a portion of waste passage member 60, thereby eliminating the structural integrity of at least a portion of the waste passage member 60, preferably in the region of the contact between the waste and the waste passage member 60, allowing passage of the waste.” (see col. 10, lines 36 to 53)

“The soluble material 66 may also be temperature sensitive ( e.g., more soluble at either low or high temperatures. As such, the soluble material 66 may have a temperature threshold. The ‘temperature threshold’ of a soluble material is the temperature at which the material changes from insoluble (or a solid) to soluble (or at least partially liquid) or vice-versa. For example, in preferred embodiments the soluble material 66 may be substantially insoluble (i.e., solid) in cold water (e.g., below 35 degrees C.) , but soluble (i.e., at least partially liquid) in warmer water. Thus, the temperature threshold of that material is 35 degrees C. Exemplary materials experiencing a transition from solid to liquid with increasing temperature include waxes, gelatin, and pectins. Alternatively, the soluble material 66 maybe soluble in cold water, but insoluble at warmer temperatures. Exemplary materials with this alternative temperature dependence include NIPAM (n-isopropylacrylamide), available from Jarchem Industries of Newark, NJ. The change in temperature may be the cause or trigger for the dissolution of the soluble material 66, or it may also be used to help increase or decrease the rate of dissolution of the waste passage member 60. Thus, the performance of the waste passage member 60 can be varied depending on factors such as the type and amount of waste deposited onto the article.” (see col. 13, lines 1 to 23)

“Suitable water soluble materials include, but are not limited to, polyvinylalcohol, cellulosic materials, starches, polyvinylaniline, polyacrylamide, alginates, water soluble alkyd compositions, and derivatives thereof.” (see col. 11, lines 38 to 41)

The water passage member 60 consists of soluble material 66 and barrier material 68.

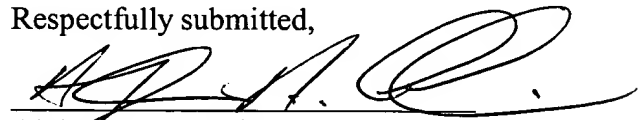
While soluble material has a temperature sensitivity so as to be soluble at a particular temperature range, the water passage member 60 does not expose the layer below the water passage member to the wearer's skin. It follows that the *Ehrnsperger et al.* patent fails to teach the limitation “a support layer formed over said skin-protective ingredient containing layer for retaining said skin-protective

ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble water," as set forth in amended claims 1, 8, 9 and 10. As a result, the lotion as taught in the *Ehrnsperger et al.* patent cannot be placed in direct contact with the wearer's skin for subsequent transference to thereby form the oily layer on the wearer's skin because the water passage member 60 of *Ehrnsperger et al.* does not expose the layer below the water passage member to the wearer's skin. In view of the foregoing differences, Applicant respectfully asserts that amended independent claims 1, 8, 9 and 10 are patentable over the cited reference. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

In view of the patentability of amended independent claims 1, 8, 9 and 10 for the reasons set forth above, amended dependent claims 2-7 and 11 are also patentable over the cited reference.

In light of the foregoing amendments and remarks, this application should be in condition for allowance. Early passage of this case to issue is respectfully requested. However, if there are any questions regarding this amendment, or the application in general, a telephone call to the undersigned would be appreciated since this would expedite the prosecution of the application for all concerned.

Respectfully submitted,



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## COMPLETE SET OF PENDING CLAIMS

1. (Fourth Amended) An absorbent article comprising:

a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between said top sheet and said back sheet;

a skin-protective ingredient containing layer applied on one surface of said top sheet on a side mating with skin of a wearer such that the skin-protective ingredient is released from said one surface of said top sheet to form an oily film on skin of the wearer while contacting the skin of the wearer; and

a support layer formed over said skin-protective ingredient containing layer for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

solving in water of said support layer being promoted at 25°C or higher, and/or absorbing of moisture or solving in water of said support layer being promoted at a relative humidity of at least 30 % for exposing said skin-protective ingredient containing layer to skin of the wearer for permitting transfer of said skin-protective ingredient to skin of the wearer.

2. (Amended) The absorbent article as set forth in claim 1,

wherein said support layer is formed of at least one compound selected from the group consisting of polyethylene oxide having a molecular weight of from 100 to

500,000, polypropylene glycol having a molecular weight of from 100 to 10,000, and polyvinyl alcohol having a degree of polymerization of from 300 to 4000 and a degree of saponification of from 50 to 99.

3. (Fourth Amended) The absorbent article as set forth in claim 1,

wherein said skin-protective ingredient containing layer is formed of a compound that forms said oily film on skin of the wearer.

4. (Twice Amended) The absorbent article as set forth in claim 3,

wherein said skin-protective ingredient containing layer is fluidized at 35°C or higher.

5. (Thrice Amended) The absorbent article as set forth in claim 3,

wherein said skin-protective ingredient containing layer is formed of at least one compound selected from the group consisting of liquid polyisoprene, squalane, pristane, ozocerite, ceresine, microcrystalline wax, polyethylene powder, liquid paraffin, petroleum jelly, and paraffin.

6. (Twice Amended) The absorbent article as set forth in claim 1,

wherein said skin-protective ingredient containing layer and said support layer are located on a surface of said top sheet.

7. (Thrice Amended) The absorbent article as set forth in claim 1, further including:

at least one of a leak-preventive cuff for preventing side leakage and a leg cuff for preventing leakage through an area around a wearer's thighs, and at least one of the leak-preventive cuff and the leg cuff are located between said top sheet and said skin-protective ingredient containing layer and said support layer.

8. (Amended) An absorbent article comprising:

a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between said top sheet and said back sheet;

a skin-protective ingredient containing layer applied on one surface of said top sheet such that a skin-protective ingredient is released from said one surface of said top sheet and transferred to skin of a wearer to form an oily film on skin of the wearer, said skin-protective ingredient containing layer being in a liquified state at 35 °C or higher; and

a support layer formed over said skin-protective ingredient containing layer for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

solving in water of said support layer being promoted at 25 °C or higher, and/or absorbing of moisture or solving in water of said support layer promoted at a relative humidity of at least 30% for exposing said skin-protective ingredient containing layer to skin of the wearer for permitting transfer of said skin-protective ingredient to skin of the wearer.

9. (Amended) An absorbent article comprising:



a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between said top sheet and said back sheet;

a skin-protective ingredient containing layer applied on one surface of said top sheet such that a skin-protective ingredient is released from said one surface of said top sheet and transferred to skin of a wearer for forming an oily film on skin of the wearer; and

a support layer formed over said skin-protective ingredient containing layer for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

said support layer being formed of at least one compound selected from among a group consisting of polyethylene oxide having a molecular weight of from 100 to 500,000, polypropylene glycol having a molecular weight of from 100 to 10,000, and polyvinyl alcohol having a degree of polymerization of from 300 to 4000 and a degree of saponification of from 50 to 99 for providing water solubility at a temperature higher than or equal to 25 °C and for enhancement of moisture absorbability or the solubility in water at a relative humidity of at least 30%.

10. (Amended) An absorbent article comprising:

a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between said top sheet and said back sheet;

a skin-protective ingredient containing layer applied to one surface of said top sheet such that a skin-protective ingredient is released from said one surface of said top sheet and

transferred to skin of a wearer for forming an oily film on skin of the wearer, said skin-protective ingredient containing layer being in a liquified state at 35 °C or higher; and

a support layer formed over said skin-protective ingredient containing layer for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

said support layer being formed of at least one compound selected from among a group consisting of polyethylene oxide having a molecular weight of from 100 to 500,000, polypropylene glycol having a molecular weight of from 100 to 10,000, and polyvinyl alcohol having a degree of polymerization of from 300 to 4000 and a degree of saponification of from 50 to 99 for providing water solubility at a temperature higher than or equal to 25 °C and for enhancement of moisture absorbability or the solubility in water at a relative humidity of at least 30 %.

11. (Amended) The absorbent article as set forth in claim 1, wherein said support layer is formed of at least one compound selected from the group consisting of polyethylene oxide having a molecular weight of from 100 to 500,000, and polypropylene glycol having a molecular weight of from 100 to 10,000.



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PATENT TRADEMARK OFFICE

Docket No.: 2309/01158

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Takayuki HISANAKA

Serial No.: 09/761,511

Art Unit: 3761

Filed: January 16, 2001

Examiner: WEBB, Jamisue A.

Confirmation No.: 5640

For: ABSORBENT ARTICLE CONTAINING SKIN-PROTECTIVE INGREDIENT

MARK-UP FOR AMENDMENT OF JUNE 16, 2003  
PURSUANT TO 37 C.F.R. §1.121

June 16, 2003

Mail Stop AF  
Commissioner for Patents  
PO Box 1450  
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Sir:

IN THE CLAIMS:

1. (Fourth Amended) An absorbent article comprising:

a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between [the] said top sheet and [the] said back sheet;

a skin-protective ingredient containing layer [containing a skin-protective ingredient] applied on one surface of said top sheet on a side mating with skin of a wearer such that the skin-protective ingredient is released from said one surface of said top sheet [for forming] to form an oily film on skin of [a] the wearer while contacting the skin of the wearer; and

a support layer [for covering] formed over said skin-protective ingredient containing layer [containing said skin-protective ingredient, and said support layer being provided on a surface of said main body for contacting the skin of the wearer, wherein] for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

[the solubility] solving in water of said support layer [is] being promoted at 25°C or higher, and/or [the] absorbing of moisture [absorbability] or [the solubility] solving in water of said support layer [is] being promoted at a relative humidity of at least 30 % for exposing said skin-protective ingredient containing layer to skin of the wearer for permitting transfer of said skin-protective ingredient to skin of the wearer.

2. (Amended) The absorbent article as set forth in claim 1,

wherein [the] said support layer is formed of at least one compound selected from the group consisting of polyethylene oxide having a molecular weight of from 100 to 500,000, polypropylene glycol having a molecular weight of from 100 to 10,

000, and polyvinyl alcohol having a degree of polymerization of from 300 to 4000 and a degree of saponification of from 50 to 99.

3. (Fourth Amended) The absorbent article as set forth in claim 1,

wherein [the layer containing the skin-protective ingredient] said skin-protective ingredient containing layer is formed of a compound [capable of forming] that forms said oily film on [the] skin of the wearer.

4. (Twice Amended) The absorbent article as set forth in claim 3,

wherein [the layer containing the skin-protective ingredient] said skin-protective ingredient containing layer [can be] is fluidized at 35°C or higher.

5. (Thrice Amended) The absorbent article as set forth in claim 3,

wherein [the layer containing the skin-protective ingredient] said skin-protective ingredient containing layer is formed of at least one compound selected from the group consisting of liquid polyisoprene, squalane, pristane, ozocerite, ceresine, microcrystalline wax, polyethylene powder, liquid paraffin, petroleum jelly, and paraffin.

6. (Twice Amended) The absorbent article as set forth in claim 1,

wherein [the layer containing the skin-protective ingredient] said skin-protective ingredient containing layer and [the] said support layer are located on a surface of [the] said top sheet.

7. (Thrice Amended) The absorbent article as set forth in claim 1, further including:  
[which further includes] at least one of a leak-preventive cuff for preventing side leakage and a leg cuff for preventing leakage through [the] an area around [the] a wearer's thighs, and at least one of the leak-preventive cuff and the leg cuff are located between [the] said top sheet and [the layer containing the skin-protective ingredient] said skin-protective ingredient containing layer and [the] said support layer.

8. (Amended) An absorbent article comprising:

a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between [the] said top sheet and [the] said back sheet;

a skin-protective ingredient containing layer [containing] applied on one surface of said top sheet such that a skin-protective ingredient is released from said one surface of said top sheet and transferred to skin of a wearer [for forming] to form an oily film on skin of [a] the wearer, said skin-protective ingredient containing layer being in a liquified state at 35 °C or higher; and

a support layer [for covering] formed over said skin-protective ingredient containing layer[, and said support layer being provided on a surface of said main body for contacting the skin of the wearer, wherein] for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

[the solubility] solving in water of said support layer [is] being promoted at 25 °C or higher, and/or [the] absorbing of moisture [absorbability] or [the solubility] solving in

water of said support layer [is] promoted at a relative humidity of at least 30% for exposing said skin-protective ingredient containing layer to skin of the wearer for permitting transfer of said skin-protective ingredient to skin of the wearer.

9. (Amended) An absorbent article comprising:

a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between [the] said top sheet and [the] said back sheet;

a skin-protective ingredient containing layer [containing] applied on one surface of said top sheet such that a skin-protective ingredient is released from said one surface of said top sheet and transferred to skin of a wearer for forming an oily film on skin of [a] the wearer; and

a support layer [for covering] formed over said skin-protective ingredient containing layer [and placed on a surface of said main body for contacting the skin of the wearer,] for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

said support layer being formed of at least one compound selected from among a group consisting of polyethylene oxide having a molecular weight of from 100 to 500,000, polypropylene glycol having a molecular weight of from 100 to 10,000, and polyvinyl alcohol having a degree of polymerization of from 300 to 4000 and a degree of saponification of from 50 to 99 for providing water solubility at a temperature higher than or equal to 25 °C and for enhancement of moisture absorbability or the solubility in water at a relative humidity of at least 30%.

10. (Amended) An absorbent article comprising:

a main body including a liquid-pervious top sheet, a back sheet and an absorbent core sandwiched between [the] said top sheet and [the] said back sheet;

a skin-protective ingredient containing layer [containing] applied to one surface of said top sheet such that a skin-protective ingredient is released from said one surface of said top sheet and transferred to skin of a wearer for forming an oily film on skin of [a] the wearer, said skin-protective ingredient containing layer being in a liquified state at 35 °C or higher; and

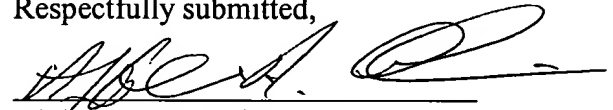
a support layer [for covering] formed over said skin-protective ingredient containing layer [and placed on a surface of said main body to be in contact with skin of the wearer] for retaining said skin-protective ingredient on said one surface of said top sheet and isolating said skin-protective ingredient containing layer from skin of the wearer, said support layer being soluble in water;

said support layer being formed of at least one compound selected from among a group consisting of polyethylene oxide having a molecular weight of from 100 to 500,000, polypropylene glycol having a molecular weight of from 100 to 10,000, and polyvinyl alcohol having a degree of polymerization of from 300 to 4000 and a degree of saponification of from 50 to 99 for providing water solubility at a temperature higher than or equal to 25 °C and for enhancement of moisture absorbability or the solubility in water at a relative humidity of at least 30 %.



11. (Amended) The absorbent article as set forth in claim 1, wherein [the] said support layer is formed of at least one compound selected from the group consisting of polyethylene oxide having a molecular weight of from 100 to 500,000, and polypropylene glycol having a molecular weight of from 100 to 10,000.

Respectfully submitted,



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